From wang!elf.wang.com!ucsd.edu!info-hams-relay Sat Apr 20 04:01:23 1991 remote
from tosspot
Received: by tosspot (1.64/waf)
     via UUCP; Sat, 20 Apr 91 12:42:50 EST
     for lee
Received: from somewhere by elf.wang.com id aa05429; Sat, 20 Apr 91 4:01:21 GMT
Received: from ucsd.edu by relay1.UU.NET with SMTP
     (5.61/UUNET-shadow-mx) id AA09987; Fri, 19 Apr 91 23:29:47 -0400
Received: by ucsd.edu; id AA19291
     sendmail 5.64/UCSD-2.1-sun
     Fri, 19 Apr 91 19:16:25 -0700 for nixbur!schroeder.pad
Received: by ucsd.edu; id AA19279
     sendmail 5.64/UCSD-2.1-sun
     Fri, 19 Apr 91 19:16:21 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/
lqueue -oi -finfo-hams-relay info-hams-list
Message-Id: <9104200216.AA19279@ucsd.edu>
Date: Fri, 19 Apr 91 19:16:20 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>
Reply-To: Info-Hams@ucsd.edu
Subject: Info-Hams Digest V91 #308
To: Info-Hams@ucsd.edu

Info-Hams Digest Fri, 19 Apr 91 Volume 91 : Issue 308

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: 19 Apr 91 20:38:45 GMT

From: swrinde!mips!zaphod.mps.ohio-state.edu!pacific.mps.ohio-state.edu!ohstpy!
b61512.im.battelle.org!kean@ucsd.edu
Subject: Columbus Road Destruction and Dayton
To: info-hams@ucsd.edu

Because of extensive construction on the Interstate system in
the Columbus area, the Columbus Highway Dept. recommends the
following routing for the Dayton weekend. If you are approaching
or leaving the Columbus area via I-71, use I-270 around the west
side of the city. If you are approaching or leaving the area
via I-70 on the east, stay on I-70 through the city.

Date: 19 Apr 91 20:45:08 GMT
From: agate!bionet!uwm.edu!rpi!zaphod.mps.ohio-state.edu!wuarchive!swbatl!
ken@ucbvax.berkeley.edu
Subject: Commercial Grade HTs
To: info-hams@ucsd.edu

In article <1991Apr19.103846.8532@n3dmc.svr.md.us> johnl@n3dmc.svr.md.us (John
Limpert) writes:
>
>The new ICOM dual band HT sounds nice but the reviews dinged it for
>several pet peeves of mine, front end overload and audio
>volume/quality. Does anyone make a HT for the amateur bands that has
>a good front end and audio volume? At work the security and
>maintenance people use Motorola HTs that can be clearly heard across a
>considerable distance in noisy conditions. I currently use a Yaesu
>FT-23R. It has weak audio and a front end that gets crunched by
>nearby paging transmitters. I would be willing to trade off size for
>improvements in these other qualities.
>
>--
>John A. Limpert   The strongest reason for the people to retain the right
>johnl@n3dmc.svr.md.us to keep and bear arms is, as a last resort, to protect
>uunet!n3dmc!johnl themselves against tyranny in government. T. Jefferson.

 If you're interested in a rugged radio with real audio, have you looked
 at the King LPI-5142? It's programmable from 136-160 MHz and is type
 accepted to boot. If you're considering the new Icom, it might even
 be competitive on price. Bendix/King (913)842-0402.

Date: 19 Apr 91 19:22:07 GMT
From: deccrl!news.crl.dec.com!shlump.nac.dec.com!sousa.ltn.dec.com!

mail.enet.dec.com!hicks@decwrl.dec.com
Subject: Driving to Dayton
To: info-hams@ucsd.edu

In article <1991Apr19.160132.1888@bronze.ucs.indiana.edu>,
anachem@silver.ucs.indiana.edu (|mehcana| (undersampled)) writes...
>   I'm driving to Dayton as a first timer. I understand that
>   parking is terrible.
>

     Correct. There are parking areas around the arena area that fill
     up quite fast. There usually has been some form of shuttle bus
     to ferry you from a remote parking area to the arena. I don't
     know where those are, though.

     A flea market space is $25. If you plan on being there for a couple
     of days (highly suggested) then it is well worth it. We usually
     take a couple of boat ancors to sell out of the trunk, too. Plus,
     if you find some irresistable stuff at the show or at the flea, you
     have an easily-accessible spot to store it rather than carry it
     around all day.

     BTW, if you haven't been to Dayton before, plan on spending just as
     much time in the flea area as the inside dislays and forums. It is
     an amazing event!

     --chas hicks
       WB0LJP

Date: 19 Apr 91 21:01:12 GMT
From: deccrl!news.crl.dec.com!shlump.nac.dec.com!
koning.enet.dec.com@decwrl.dec.com
Subject: F connectors
To: info-hams@ucsd.edu

|>
|>I recall reading that F connectors were very good ELECTRICALLY. Now
|>that they are available for 50-Ohm cable, RG-58 size, I am wondering
|>how they perform from, say, DC up through 2 meters.
|>

I can't imagine them being very good electrically. Given that the center
conductor is the center contact, RG58 wouldn't work -- the center conductor
would be too big. Also, some 50 ohm cable has stranded center conductor,
which would fail miserably.

Apart from that, they are a mechanical disaster. I hate UHF connectors, but

they are wonders of engineering compared to F. As far as I can see, the only reason F connectors exist is because they are far cheaper than anything else.

|>A QRP guru recently gave a talk to our ham club. He said that F connectors
|>have 0.5 dB of loss. That seems impossible to me. It would represent a
|>pretty high ohmic contact resistance. His source for this misinformation
|>was some QRP magazine.
|>
|>Who has reliable information on this subject?
|>
|>TNS ES 73 DE K9CUN
|>
|>Jack Derry
|>derry@rosevc.rose-hulman.edu
|>
|>810 S. 34th Street, Terre Haute, IN 47803
|>

0.5 dB makes sense to me. Ohmic loss isn't the only (or even major) issue; other problems are impedance bumps, dielectric losses, leakage, etc.

     paul

Date: 19 Apr 91 23:29:32 GMT
From: ogicse!zephyr.ens.tek.com!tvnews!thd!bill@ucsd.edu
Subject: FM SCA Subcarrier Demodulation
To: info-hams@ucsd.edu

The SCA carrier is an FM signal (usually 67 kHz) that is added to the audio of an FM radio station before it is fed to the transmitter. If the station is stereo, there will also be a 19 kHz pilot tone and a 38 kHz AM suppressed carrier signal that carries the stereo difference information. All these signals plus the mono audio are mixed together and fed to the FM transmitter.

To decode these, you first detect the FM signal. The portion from 0 to 15 kHz is lowpass filtered to recover the L+R mono audio. If a 19 kHz tone is present, a stereo receiver will turn on the 38 kHz DSB detector to recover L-R, which is combined with L+R in a matrix to decode L and R. If the receiver has an SCA detector and a 67 kHz carrier is present, another FM detector demodulates it. Think of an SCA receiver as having two FM detectors in series.

If you need a better explanation, send email.

For a circuit, try looking at the data sheet for the 565 PLL made by
Signetics, Motorola, National Semiconductor, and others.
--
Bill McFadden Tektronix, Inc. P.O. Box 500 MS 58-639 Beaverton, OR 97077
bill@videovax.tv.tek.com, {hplabs,uw-beaver,decvax}!tektronix!videovax!bill
Phone: (503) 627-6920 "SCUD: Shoots Crooked, Usually Destroyed"

Date: 20 Apr 91 00:43:21 GMT
From: news-mail-gateway@ucsd.edu
Subject: NASA Prediction Bulletins
To: info-hams@ucsd.edu

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

- Current NASA Prediction Bulletins #837 -
Alouette 1
1 00424U 62B-A 1 91102.16227732 .00000403 00000-0 47023-3 0 3971
2 00424 80.4702 351.3044 0021773 224.7920 135.1386 13.67508692423552
ATS 3
1 03029U 67111 A 91 99.79553794 -.00000076 00000-0 99999-4 0 5200
2 03029 13.5673 18.6770 0017280 228.8932 130.9740 1.00272933 85769
Cosmos 398
1 04966U 71 16 A 91108.46825889 .00125583 19526-4 61577-3 0 5704
2 04966 51.5029 163.0806 2053127 25.3519 343.5150 11.53567171626088
Starlette
1 07646U 75010 A 91 98.35919790 .00000036 00000-0 75551-4 0 2029
2 07646 49.8200 73.7602 0205614 86.2479 276.1896 13.82154507816603
LAGEOS
1 08820U 76039 A 91102.35471075 .00000005 00000-0 99999-4 0 2209
2 08820 109.8367 97.6155 0044262 174.8990 185.1807 6.38664302 93047
GOES 2
1 10061U 77048 A 91101.78169883 -.00000257 00000-0 99999-4 0 5806
2 10061   8.7702 60.1271 0003940 21.8864 338.1519 1.00254745 52001
IUE
1 10637U 78012 A 91 98.90692571 -.00000180 00000-0 79862-4 0 2248
2 10637 32.7698 114.0796 1408565   1.1900 359.2080 1.00287730 9433
GPS-0001
1 10684U 78020 A 91101.10802193 .00000004 00000-0 99999-4 0 6150
2 10684 63.8990 80.3210 0127367 200.4223 159.0745 2.00553485 81821
GPS-0002

```
1 10893U 78 47  A 91100.11242070 -.00000022  00000-0  99999-4 0  3375
2 10893  64.2312 321.2043 0172427  23.9267 336.9049  2.00533682 94622
GOES 3
1 10953U 78062  A 91106.09771458  .00000101  00000-0  99999-4 0   621
2 10953   7.6692  62.7145 0004509  98.4289 261.5901  1.00285530   113
SeaSat 1
1 10967U 78064  A 91102.30722896  .00002008  00000-0  72557-3 0  4903
2 10967 108.0153 217.8309 0003072 223.1321 136.9680 14.36462424669391
GPS-0003
1 11054U 78093  A 91 98.85784464 -.00000021  00000-0  99999-4 0  3628
2 11054  63.7466 317.3902 0064432 116.8109 243.8969  2.00572320 91614
Nimbus 7
1 11080U 78098  A 91 99.75409735  .00000223  00000-0  23130-3 0  7391
2 11080  99.1734   2.6496 0009330  15.0547 345.0882 13.83534068629041
GPS-0004
1 11141U 78112  A 91101.47731067  .00000004  00000-0  99999-4 0  1461
2 11141  63.8332  80.1746 0061474 311.4816  47.9903  2.00546280 90364
GPS-0005
1 11690U 80 11  A 91100.11889813  .00000005  00000-0  99999-4 0  1083
2 11690  64.3401  82.5110 0123254 203.0580 156.4258  2.00552430 96196
GPS-0006
1 11783U 80 32  A 91 95.92533111 -.00000021  00000-0  99999-4 0  4068
2 11783  63.5636 316.9772 0162889  59.3932 302.2320  2.00576960 80196
GOES 5
1 12472U 81049  A 91 98.04615071  .00000136  00000-0  99999-4 0   663
2 12472   4.2014  72.1400 0003117 282.6346  77.4892  1.00252445 35183
Cosmos 1383
1 13301U 82 66  A 91 94.01230107  .00000267  00000-0  30280-3 0  6939
2 13301  82.9292  87.6399 0029159  78.0258 282.4149 13.67901179437435
LandSat 4
1 13367U 82 72  A 91101.49171165  .00001277  00000-0  29286-3 0  7349
2 13367  98.1340 162.4737 0002403 318.4307  41.5649 14.57168420464744
IRAS
1 13777U 83  4  A 91 98.04024139  .00000354  00000-0  26878-3 0  9132
2 13777  99.0138 295.0951 0012066 296.1180  63.8750 13.98920624 88166
Cosmos 1447
1 13916U 83 21  A 91102.18198900  .00000234  00000-0  23571-3 0  7890
2 13916  82.9456 151.0215 0039715  27.4985 332.8244 13.74132163403735
TDRS 1
1 13969U 83 26  B 91102.09494060  .00000127  00000-0  99999-4 0  3029
2 13969   5.1952  63.1215 0003509 328.3069  31.6948  1.00276849  2345
GOES 6
1 14050U 83 41  A 91101.03196172  .00000113  00000-0  99999-4 0  3984
2 14050   2.9783  74.7008 0001160 303.1214  57.1540  1.00282225  1127
OSCAR 10
1 14129U 83 58  B 91 97.32732770  .00000024  00000-0  99999-4 0  6462
2 14129  25.8493 151.9623 6008503 231.4593  58.2833  2.05882614 30790
GPS-0008
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```
1 14189U 83 72  A 91 98.84920780  .00000003  00000-0  99999-4 0  9079
2 14189  63.5206  78.5948 0143419 225.3179 133.5023  2.00568376 56699
LandSat 5
1 14780U 84 21  A 91108.66838580  .00000427  00000-0  99999-4 0  6212
2 14780  98.2380 169.8199 0005504 168.8677 191.2646 14.57108271379208
UoSat 2
1 14781U 84 21  B 91108.60790668  .00004729  00000-0  85566-3 0  9969
2 14781  97.9080 155.6266 0012633   7.3169 352.8348 14.66747077380719
GPS-0009
1 15039U 84 59  A 91 96.03099321  .00000002  00000-0  99999-4 0  1797
2 15039  63.2702  77.7993 0028346 227.0133 132.7493  2.00565525 49915
Cosmos 1574
1 15055U 84 62  A 91106.71270673  .00000318  00000-0  33011-3 0   439
2 15055  82.9614 198.5420 0026787 195.5239 164.5101 13.73444883341732
GPS-0010
1 15271U 84 97  A 91101.95929275 -.00000021  00000-0  99999-4 0   246
2 15271  63.0471 316.1858 0112634 332.4467  27.0237  2.00564691 47147
Cosmos 1602
1 15331U 84105  A 91101.99618395  .00006628  00000-0  86677-3 0  5235
2 15331  82.5354  83.6497 0024656  76.0288 284.3674 14.80115320352259
NOAA 9
1 15427U 84123  A 91102.28360107  .00000955  00000-0  53396-3 0  7252
2 15427  99.1729 114.2159 0014121 248.7678 111.1989 14.12944064326211
GPS-0011
1 16129U 85 93  A 91 99.18533417  .00000003  00000-0  99999-4 0  7387
2 16129  64.0418  78.9192 0122971 147.7498 213.0202  2.00564741 40296
Mir
1 16609U          91107.85243023  .00080629  00000-0  81916-3 0  3804
2 16609  51.6067 233.4307 0010040 120.4867 239.7062 15.64417562295695
SPOT 1
1 16613U 86 19  A 91102.74200439  .00001385  00000-0  66853-3 0  2860
2 16613  98.6955 177.8183 0002034  69.5548 290.5845 14.20015950106447
Cosmos 1766
1 16881U 86 55  A 91102.09729676  .00004628  00000-0  61353-3 0  3778
2 16881  82.5255 142.2634 0023067  91.2586 269.1663 14.79497609253317
EGP
1 16908U 86 61  A 91 97.19363411 -.00000043  00000-0 -30202-4 0  3443
2 16908  50.0083  72.1433 0011329 223.6359 136.3561 12.44393894211464
NOAA 10
1 16969U 86 73  A 91 97.93691543  .00001129  00000-0  50757-3 0  5672
2 16969  98.5720 123.9135 0014050 129.2742 230.9686 14.24039231236559
MOS-1
1 17527U 87 18  A 91108.71213158 -.00000022  00000-0 -33126-5 0  8213
2 17527  99.0731 181.8043 0003907  10.1253 350.0261 13.94872872211854
GOES 7
1 17561U 87 22  A 91 98.75349979 -.00000045  00000-0  99999-4 0  7547
2 17561   0.0537 120.5656 0007317 286.6767 312.8294  1.00272554  8533
Kvant-1
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```
1 17845U 87 30  A 91108.68282024  .00073000  00000-0  73933-3 0  5718
2 17845  51.6057 229.2136 0009666 118.6038 241.5881 15.64543445230577
DMSP B5D2-3
1 18123U 87 53  A 91102.89041825  .00001345  00000-0  72014-3 0  8964
2 18123  98.8153 294.4855 0013557 250.2382 109.7330 14.14502568196769
RS-10/11
1 18129U          91107.90229248  .00000521  00000-0  56128-3 0  5860
2 18129  82.9219 103.4085 0011775   1.9123 358.2087 13.72176641191329
Meteor 2-16
1 18312U 87 68  A 91106.88724636  .00000366  00000-0  32139-3 0  6235
2 18312  82.5533  49.5731 0013275 113.0284 247.2280 13.83767496184988
Meteor 2-17
1 18820U 88  5  A 91106.46001087  .00000189  00000-0  15809-3 0  4712
2 18820  82.5405 109.3736 0015812 187.6611 172.4317 13.84469815162149
DMSP B5D2-4
1 18822U 88  6  A 91102.95451567  .00001455  00000-0  67610-3 0  8333
2 18822  98.6045 340.1762 0007581 118.1611 242.0338 14.21933682165416
Glonass 34
1 19163U 88 43  A 91101.59514302  .00000020  00000-0  99999-4 0  2257
2 19163  64.9161 149.1941 0007175 201.8186 158.2458  2.13102739 22504
Glonass 36
1 19165U 88 43  C 91101.65199750  .00000020  00000-0  99999-4 0  2162
2 19165  64.8912 149.1814 0005346 319.8173  40.2355  2.13102997 22504
AO-13
1 19216U 88 51  B 91 78.38609337  .00000215  00000-0  44351-3 0  2424
2 19216  56.8112 104.6916 7140389 249.8316  25.0884  2.09695125 21173
OKEAN 1
1 19274U 88 56  A 91102.22969024  .00005506  00000-0  74687-3 0   865
2 19274  82.5136 240.8774 0020219 224.0264 135.9793 14.78617279149087
Meteor 3-2
1 19336U 88 64  A 91101.92664892  .00000121  00000-0  29681-3 0  7199
2 19336  82.5444  66.0743 0016059 288.9946  70.9502 13.16919571130273
Glonass 39
1 19503U 88 85  C 91102.14100201 -.00000018  00000-0  99999-4 0  1428
2 19503  65.4541  28.5082 0004507 197.9840 162.0067  2.13103614 20009
NOAA 11
1 19531U 88 89  A 91 99.26633402  .00001228  00000-0  69016-3 0  4775
2 19531  99.0242  53.5690 0012222 164.8291 195.3252 14.12059942130744
TDRS 2
1 19548U 88 91  B 91 97.94047857  .00000114  00000-0  99999-4 0  2362
2 19548   0.8528  80.4427 0001776 287.8629 351.6825  1.00276298  7877
Glonass 40
1 19749U 89  1  A 91102.18244873  .00000020  00000-0  99999-4 0  9270
2 19749  64.8596 148.8338 0007247 274.0599  85.9462  2.13102027 17539
Glonass 41
1 19750U 89  1  B 91102.24053305  .00000020  00000-0  99999-4 0  9806
2 19750  64.8804 148.8565 0007357 256.7635 103.2498  2.13102416 17530
GPS BII-01
```

1 19802U 89 13 A 91 58.17527061 .00000017 00000-0 99999-4 0 2319
2 19802 55.0455 187.3559 0050904 163.2354 196.8890 2.00558153 14865
Akebono
1 19822U 89 16 A 91101.96661259 .00043357 00000-0 23984-2 0 9891
2 19822 75.0846 90.5502 4100135 28.4707 348.9686 7.26602355 21280
Meteor 2-18
1 19851U 89 18 A 91106.72821041 .00000464 00000-0 40683-3 0 4243
2 19851 82.5248 346.6084 0012671 233.9489 126.0499 13.84119466107553
MOP-1
1 19876U 89 20 B 91 83.49540771 .00000025 00000-0 99999-4 0 1840
2 19876   0.2910 50.4188 0001552 314.1531 355.4087 1.00273956 3471
TDRS 3
1 19883U 89 21 B 91104.55447587 -.00000237 00000-0 99999-4 0 2376
2 19883   0.8772 77.6129 0041876 329.3605 313.6292 1.00271603 77911
GPS BII-02
1 20061U 89 44 A 91 58.00437706 -.00000034 00000-0 99999-4 0 2332
2 20061 54.8640   5.4895 0089842 183.4176 176.5173 2.00566400 12602
Nadezhda 1
1 20103U 89 50 A 91106.84603771 .00000296 00000-0 30378-3 0 3176
2 20103 82.9586 61.1570 0036160 274.3790 85.3247 13.73678121 89403
GPS BII-03
1 20185U 89 64 A 91 57.34599602 .00000016 00000-0 99999-4 0 1766
2 20185 54.8906 188.1900 0021289 164.8064 195.2144 2.00568043 11161
GPS BII-04
1 20302U 89 85 A 91 41.91577973 -.00000024 00000-0 99999-4 0 1785
2 20302 54.4598 307.3315 0032510 329.9999 29.8633 2.00556091 9656
Meteor 3-3
1 20305U 89 86 A 91100.13156366 .00000043 00000-0 99999-4 0 3320
2 20305 82.5542   8.5610 0016096 310.3595 49.6215 13.15946754 70005
COBE
1 20322U 89 89 A 91100.96981821 .00000510 00000-0 35075-3 0 2686
2 20322 99.0193 113.4830 0008365 263.5834 96.4392 14.03038823 71244
Kvant-2
1 20335U 89 93 A 91108.74668880 .00074839 00000-0 75711-3 0 6710
2 20335 51.6051 228.9083 0009760 118.0537 242.1015 15.64558505 79513
GPS BII-05
1 20361U 89 97 A 91 94.27896796 .00000013 00000-0 99999-4 0 1368
2 20361 55.0316 128.8202 0062922 60.9080 299.7837 2.00558030   188
SPOT 2
1 20436U 90 5 A 91102.70709684 .00001032 00000-0 50226-3 0 5140
2 20436 98.6984 177.8478 0000822 100.3975 259.7291 14.20042231 63250
UO-14
1 20437U 90 5 B 91102.19987967 .00001197 00000-0 48882-3 0 3275
2 20437 98.6689 182.0325 0011166   5.6581 354.4337 14.29044588 63569
UO-15
1 20438U 90 5 C 91102.21837641 .00000776 00000-0 32476-3 0 2051
2 20438 98.6748 181.9723 0010211   5.5949 354.5319 14.28649698 63555
PACSAT

1 20439U 90 5 D 91102.23899255 .00001191 00000-0 48525-3 0 2192
2 20439 98.6743 182.3695 0011900   8.1550 351.9729 14.29135378 63571
DO-17
1 20440U 90 5 E 91102.22307942 .00001295 00000-0 52544-3 0 2191
2 20440 98.6742 182.3927 0011905   9.4054 350.7186 14.29212936 63578
WO-18
1 20441U 90 5 F 91 98.62500630 .00001030 00000-0 42067-3 0 2173
2 20441 98.6723 178.8625 0012888 16.0879 344.0710 14.29256413 63064
LO-19
1 20442U 90 5 G 91 98.67315919 .00000948 00000-0 38790-3 0 2190
2 20442 98.6722 178.9615 0012935 16.0300 344.1292 14.29331789 63073
GPS BII-06
1 20452U 90 8 A 91 67.75229359 .00000004 00000-0 99999-4 0 1530
2 20452 54.3982 245.2075 0046174 52.4825 307.8626 2.00554625 8154
MOS-1B
1 20478U 90 13 A 91102.21904002 .00000332 00000-0 27309-3 0 5308
2 20478 99.1533 175.6530 0000662 44.9476 315.1709 13.94854539 59829
DEBUT
1 20479U 90 13 B 91105.46288860 .00000247 00000-0 60371-3 0 1921
2 20479 99.0229 99.5400 0541706 83.6665 282.5775 12.83187494 55518
FO-20
1 20480U 90 13 C 91105.45830526 .00000074 00000-0 21687-3 0 1862
2 20480 99.0224 99.5356 0541596 83.6151 282.6307 12.83176352 55515
MOS-1B R/B
1 20491U 90 13 D 91100.95599910 -.00000312 00000-0 -56204-3 0 2156
2 20491 99.0206 107.8573 0471308 53.2470 311.0797 13.02803184 55175
LACE
1 20496U 90 15 A 91108.30490343 .00023027 00000-0 11705-2 0 4985
2 20496 43.0941 80.7143 0017137 113.1584 247.1116 15.16324820 64812
RME
1 20497U 90 15 B 91102.11258528 .00033492 00000-0 65257-3 0 5256
2 20497 43.0974 19.1168 0018486 161.5040 198.7372 15.46750634 64931
Nadezhda 2
1 20508U 90 17 A 91106.25836853 .00000267 00000-0 27467-3 0 2738
2 20508 82.9566 196.4284 0043258 221.8284 137.9582 13.73300541 56605
OKEAN 2
1 20510U 90 18 A 91101.93466719 .00005354 00000-0 79548-3 0 4610
2 20510 82.5284 182.3456 0020599 26.4200 333.8058 14.74719905 60077
INTELSAT-6
1 20523U 90 21 A 91 91.55355126 -.00000992 00000-0 -77177-4 0 4503
2 20523 28.3374 172.8868 0015279 28.8362 331.3048 15.03589821 57875
GPS BII-07
1 20533U 90 25 A 91102.06551073 -.00000034 00000-0 99999-4 0 1527
2 20533 55.1901   3.8784 0034818 96.0580 264.3744 2.00567840 7614
PegSat
1 20546U 90 28 A 91108.77364997 .00038339 00000-0 19721-2 0 5003
2 20546 94.1428 18.5334 0131002 309.1749 49.7948 15.09065938 56009
HST

1 20580U   91106.37161498 .00007462 00000-0 79308-3 0 4063
2 20580 28.4685 117.4852 0004890 40.8722 327.6839 14.87300753 53107
Glonass 44
1 20619U 90 45 A 91102.08333863 .00000002 00000-0 48937 2 0 4363
2 20619 65.0540 28.6899 0022270 218.2781 141.5740 2.13103556 6996
Glonass 45
1 20620U 90 45 B 91102.20121185 .00000012 00000-0 74873 2 0 4539
2 20620 65.0527 28.6833 0008281 25.5085 334.5463 2.13103825 7001
Glonass 46
1 20621U 90 45 C 91101.32154847 -.00000018 00000-0 99999-4 0 3897
2 20621 65.0701 28.7236 0012376 210.3025 149.6335 2.13102605 6986
Kristall
1 20635U 90 48 A 91108.68281797 .00080096 00000-0 81002-3 0 4716
2 20635 51.6045 229.2284 0009182 115.5707 244.5925 15.64546019 50382
ROSAT
1 20638U 90 49 A 91102.26332644 .00008108 00000-0 65562-3 0 2317
2 20638 52.9874 161.3853 0015293 152.9726 207.2084 15.00506700 47137
Meteor 2-19
1 20670U 90 57 A 91106.89005958 .00000492 00000-0 43291-3 0 1705
2 20670 82.5459 47.5791 0016078 149.2995 210.9111 13.83946658 40523
CRRES
1 20712U   91106.10773439 .00001813 00000-0 21126-2 0 2016
2 20712 17.9511 297.8462 7114555 43.0049 354.6101 2.44238357 6468
GPS BII-08
1 20724U 90 68 A 91 55.54435681 .00000016 00000-0 99999-4 0   845
2 20724 54.6996 186.1883 0096447 122.6748 238.2165 2.00563932 4103
Feng Yun1-2
1 20788U 90 81 A 91 99.95294536 .00000518 00000-0 36819-3 0 1305
2 20788 98.9462 134.8714 0015188 10.5280 349.6202 14.01109554 30652
Meteor 2-20
1 20826U 90 86 A 91106.66403113 .00000502 00000-0 44652-3 0 1265
2 20826 82.5310 346.8284 0014918 54.5918 305.6639 13.83331286 27705
GPS BII-09
1 20830U 90 88 A 91 92.47526014 .00000012 00000-0 99999-4 0   890
2 20830 54.9154 127.0815 0074356 115.5295 245.3041 2.00568450 3923
GPS BII-10
1 20959U 90103 A 91 76.43064871 .00000017 00000-0 99999-4 0   262
2 20959 54.9591 186.9802 0045402 213.8318 146.2541 2.00567535 2193
DMSP B5D2-5
1 20978U   91108.42388563 .00003589 00000-0 13360-2 0 1132
2 20978 98.8405 144.2058 0080115 315.1723 44.3007 14.30884993 19707
Soyuz TM-11
1 20981U 90107 A 91108.74668279 .00079886 00000-0 80722-3 0 1717
2 20981 51.6074 228.9046 0010079 121.2817 238.8497 15.64557477 21505
Glonass 47
1 21006U 90110 A 91101.36064148 .00000020 00000-0 99999-4 0 1155
2 21006 64.8370 148.2722 0061995 186.9246 173.0703 2.13102196 2661
Glonass 48

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1 21007U 90110  B 91101.06811428  .00000020  00000-0  99999-4 0  1345
2 21007  64.8566 148.3084 0039107 181.6011 178.4700  2.13100335  2651
Glonass 49
1 21008U 90110  C 91100.01240291  .00000020  00000-0  99999-4 0  1096
2 21008  64.8406 148.3327 0011094 290.7185  69.2407  2.13100349  2638
INFORMTR-1
1 21087U          91107.96751220  .00000303  00000-0  30826-3 0   313
2 21087  82.9386 278.2797 0037042  67.3972 293.1098 13.74370702 10757
Cosmos 2123
1 21089U 91  7  A 91106.59276242  .00000227  00000-0  22916-3 0   345
2 21089  82.9240 149.7673 0031147  90.4620 270.0106 13.73886869  9689
MOP-2
1 21140U 91 15  B 91 97.28897163  .00000004  00000-0  99999-4 0   325
2 21140   1.1414 297.0546 0002168  14.4682 344.4133  1.00295186   156
Nadezhda 3
1 21152U 91 19  A 91101.96088000  .00000006  00000-0  00000 0 0   192
2 21152  82.9203 107.9386 0041000 206.5631 153.3750 13.73326717  4142
Progress M7
1 21188U 91 20  A 91108.68280105  .00080798  00000-0  81709-3 0  1218
2 21188  51.6053 229.2270 0008989 121.6188 238.4604 15.64545976  4730
Cosmos 2137
1 21190U 91 21  A 91102.09734004  .00020197  00000-0  63671-3 0   251
2 21190  65.8425 300.9360 0034981 330.6520  29.2671 15.32326300  3601
1991 021B
1 21191U 91 21  B 91101.94528612  .00040667  00000-0  12032-2 0   439
2 21191  65.8354 301.2516 0034301 339.4927  20.4807 15.34099863  3588
Molniya3-40
1 21196U 91 22  A 91101.37989599 -.00000109  00000-0  19958-3 0   249
2 21196  62.8742 311.0688 7431562 280.5324  10.6655  2.00621238   411
1991 022D
1 21199U 91 22  D 91101.50409436 -.00000023  00000-0  71122-3 0   116
2 21199  62.8602 310.8274 7374392 280.7893  10.9646  2.05635624   420
1991 014E
1 21201U 91 14  E 91 97.49516410  .00003466  00000-0  16263-2 0   100
2 21201  47.4901 238.4645 7230138   9.8658 358.7815  2.33011379   911
1991 014F
1 21202U 91 14  F 91100.39892036  .00011742  00000-0  20054-2 0    82
2 21202  47.3993 237.4110 7244223  11.0985 358.7567  2.33867322   984
Cosmos 2138
1 21203U          91107.98988800  .00947394  27885-4  32008-3 0   577
2 21203  67.1392 300.4895 0154125  87.9834 273.8758 16.02792057  3613
1991 023B
1 21204U 91 23  B 91 87.84647494  .18280002  30103-4  33209-3 0   134
2 21204  67.1627   8.6511 0046059  91.9560 269.0962 16.41670542   375
Almaz-1
1 21213U          91107.56587246  .00275007  36140-4  38614-3 0   344
2 21213  72.7016  58.4221 0010566 230.6321 129.3931 16.05556712  2728
Cosmos 2139
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1 21216U 91 25  A 91101.44296114 -.00000018  00000-0  99999-4 0   105
2 21216  64.8071  28.8793 0058770 266.3887  98.9290  2.14812200   168
Cosmos 2140
1 21217U 91 25  B 91101.44375680 -.00000018  00000-0  99999-4 0   113
2 21217  64.7911  28.8810 0048788  96.9708 258.2594  2.11347794   164
Cosmos 2141
1 21218U 91 25  C 91101.44254049 -.00000018  00000-0  99999-4 0   120
2 21218  64.7944  28.8729 0022842 254.0777 105.6708  2.13519493   167
1991 025D
1 21219U 91 25  D 91 94.74774096  .28808147  38238-4  15492-3 0    35
2 21219  64.8184  28.1760 0013333 280.2281  79.9690 16.54538856    54
1991 025E
1 21220U 91 25  E 91 97.33884980  .00000100  00000-0  99999-4 0    17
2 21220  64.8638  28.0398 5805261 349.1706   2.3452  4.23298957    28
1991 025F
1 21221U 91 25  F 91101.43711723 -.00000018  00000-0  99999-4 0    96
2 21221  64.7953  28.8742 0004655 314.7719  45.1968  2.13166477   119
Anik E-2
1 21222U 91 26  A 91107.72009849 -.00000112  00000-0  99999-4 0   719
2 21222   0.0641  39.0387 0007398 116.0893 204.9091  1.00498137    49
1991 026B
1 21223U 91 26  B 91 96.09141722 -.00150849  00000-0 -60963 0 0    60
2 21223   4.1987 356.4373 7220558 181.1390 174.8038  2.25768925    23
GRO
1 21225U 91 27  B 91101.42549044  .00029079  00000-0  74047-3 0   101
2 21225  28.4627 198.5246 0009172 338.3161  22.2693 15.38133190   909
1991 025G
1 21226U 91 25  G 91 98.69999999  .00000105  00000-0  99999-4 0    48
2 21226  64.7610  27.5750 5807851 349.1750 276.6470  4.23261280    86
1991 028A
1 21227U 91 28  A 91107.84999999  .00000009  00000-0  99999-4 0   717
2 21227   0.6801 211.0490 0062647 290.8480 254.7480  1.00238751    01
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Dr TS Kelso   Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil   Air Force Institute of Technology

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Date: 19 Apr 91 16:07:50 GMT
From: epiwrl!parker@uunet.uu.net
Subject: Stolen Radio Help (Icom IC 24AT)
To: info-hams@ucsd.edu

NO, I DON'T HAVE ONE FOR SALE, I'M LOOKING FOR MINE!

(What was) my Icom IC-24AT was stolen out of my car on the night of April 18,1991 while it was parked in DC. The radio was less than a week old with the standard BP-82 battery pack and PL board installed. A spare

BP-90 (alkaline AA pack) may have also been taken.
   If you notice a BRAND NEW IC-24AT being sold without any charger or box, please notice the serial number and notify me.

STOLEN: Icom IC-24AT (small dual band HT)   s/n 05071

   The following repeaters were programmed into the radio, so if you hear a strange operator on these repeaters, please notify me.

channels programed: 147.21, 147.36, 145.29, 146.85, 147.18, 146.52, 146.58
 "   "   "   "   RX only: 166.925, 450.9125, 455.925, 159.000, 460.275

 Your help in recovering this radio would be much appreciated. I'm sure I won't see this radio again, but I DEFINETLY won't see it if no one helps.

Mike Peyton, N3IZX @ WA3ZNW, h 301-933-2273, w 703-749-7381
              usenet/internet: mpeyton@mcimail.com

Date: 19 Apr 91 20:03:53 GMT
From: infonode!ingr!b15!ptc@uunet.uu.net
Subject: What's the Law on Cellular Listening?
To: info-hams@ucsd.edu

I've been reading rec.radio.shortwave for about 6 months, and have found it very informative and I have recieved some valuable information to some questions I posted. Thanks to all who've responded..

I've told my girlfriend who is a lawyer (yes, I know..I've told her all the lawyer jokes out of rec.humor) about reading on the bulletin board that it is illegal to listen in on cellular phone conversations. She, and some of the members of her firm, have argued this. She is telling me that nothing broadcast in the airwaves is confidential. I, trusting the wisdom of the net, have gone out on a limb and wagered her a candlelight dinner (among other things) that there is a law somewhere on the books that says it is illegal. Can anyone post the exact law which states this? Is it an FCC regulation?

Thanks...

Paul
--
+-+
Paul Carter   Intergraph Corporation- Huntsville Ala.
uucp: uunet!ingr!b15!ptc   (205) 730-6859
+-+

Date: 19 Apr 91 20:17:10 GMT
From: pa.dec.com!shlump.nac.dec.com!yacht.enet.dec.com!gettys@decwrl.dec.com
To: info-hams@ucsd.edu

References <3192@ksr.com>, <3287@borg.cs.unc.edu>, <4458@ryn.mro4.dec.com>om
Reply-To : gettys@yacht.enet.dec.com (Bob Gettys)
Subject : Re: No-Code Testing - Who is to adm.

In article <4458@ryn.mro4.dec.com>, taber@ultnix.enet.dec.com (Patrick St. Joseph Teahan Taber) writes:
|>It's true that it says that in the rules, but neither of the National
|>VECs accept VEs unless they are Extra class. I don't know about the
|>smaller VECs, but I've heard that nobody accredits Advanced or General
|>VEs. There's no shortage of examiners and the headaches of mixed-class
|>VEs aren't worth it.
|>
|>--
|>   >>>==>PStJTT
|>   Patrick St. Joseph Teahan Taber, KC1TD
|>
|>"Nerd" is so demeaning, I prefer "fashion-impared."
|>

    I hate to disagree, but the Framingham Amateur Radio Assoc. uses VE's that are ARRL accredited and many of them are Advanced class licensee's. We give enough exams on the days when we do it that there is no problem with the added "complexity" having two levels of VE's. I also know that some of these have been accredited within the last 4 months, so the ARRL is still doing it (as they should). I sure don't count the ARRL as one of the "smaller VEC's.

    /s/ Bob N1BRM

End of Info-Hams Digest
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